

In the Claims:

For the convenience of the Examiner, all claims have been presented whether or not an amendment has been made.

1. (Currently Amended) An access server, comprising:
a plurality of modems;

a monitoring module coupled to the modems, the monitoring module operable, for each of the modems, to determine a performance attribute that indicates operating performance of the modem based on a combination of at least two of multiple independent samples taken over a period of operation of the modem;

~~a memory operable to store a the performance attribute for each modem, wherein for each of the modems, the performance attribute indicates operating performance of the modem as determined based on multiple independent samples taken over a period of operation of the modem;~~

an allocation module coupled to the memory and operable to receive a modem request and to select a modem for service according to the modem's performance attribute; and

a telecommunications interface coupled to the allocation module and operable to couple a remote modem to the selected modem.

2. (Currently Amended) The access server of Claim 1, ~~further comprising a monitoring module coupled to the modems and the memory, wherein~~ the monitoring module operable to monitor the selected modem's performance and to modify the performance attribute for the selected modem according to the modem's performance.

3. (Original) The access server of Claim 1, wherein:

the memory is further operable to store a plurality of user profiles; and

the allocation module is further operable to receive a user identifier associated with the modem request, to identify a user profile associated with the user identifier in the memory, and to select a modem for service according to the modem's performance attribute and the user profile.

4. (Original) The access server of Claim 3, wherein:
each user profile indicates a subset of modems; and
the allocation module is further operable to identify a subset of modems according to the user profile and to select a modem for service from the identified subset according to the modem's performance attribute.

5. (Original) The access server of Claim 3, wherein:
each user profile indicates a criterion related to a performance attribute; and
the allocation module is further operable to identify a criterion according to the user profile and to select a modem for service according to the criterion and the modem's performance attribute.

6. (Original) The access server of Claim 1, wherein the allocation module is further operable to remove a modem from service according to the modem's performance attribute.

7. (Original) The access server of Claim 1, wherein:
the performance attribute is a call success rate; and
the allocation module selects a modem for service by identifying an available modem associated with the highest call success rate.

8. (Original) The access server of Claim 1, wherein:
the performance attribute is an average data transfer rate; and
the allocation module selects a modem for service by identifying an available modem associated with the highest average data transfer rate.

9. (Original) The access server of Claim 1, wherein the modems are digital subscriber line (DSL) modems.

10. (Currently Amended) A method of selecting a modem for service, comprising:

determining, for each of a plurality of modems, a performance attribute that indicates operating performance of the modem based on a combination of at least two of multiple independent samples taken over a period of operation of the modem;

~~storing a the performance attribute for each modem of a plurality of modems, wherein for each of the modems, the performance attribute indicates operating performance of the modem as determined based on multiple independent samples taken over a period of operation of the modem;~~

receiving a modem request;

selecting a modem for service according to the modem's performance attribute; and

coupling a remote modem and the selected modem.

11. (Original) The method of Claim 10, further comprising:
monitoring the selected modem's performance; and
modifying the performance attribute for the selected modem according to the modem's performance.

12. (Original) The method of Claim 10, further comprising:
storing a plurality of user profiles;
identifying a user profile associated with the modem request; and
selecting a modem for service according to the modem's performance attribute and the user profile.

13. (Original) The method of Claim 12, further comprising:
identifying a subset of modems associated with the user profile; and
selecting a modem for service from the identified subset according to the modem's performance attribute.

14. (Original) The method of Claim 12, further comprising:
identifying a criterion according to the user profile, the criterion related to the performance attributes of the modems; and
selecting a modem for service according to the criterion and the modem's performance attribute.

15. (Original) The method of Claim 10, further comprising removing a modem from service according to the modem's performance attribute.

16. (Original) The method of Claim 10, wherein:
the performance attribute is a call success rate; and
selecting a modem for service according to the modem's performance attribute comprises identifying an available modem associated with the highest call success rate.

17. (Original) The method of Claim 10, wherein:
the performance attribute is an average data transfer rate; and
selecting a modem for service according to the modem's performance attribute comprises identifying an available modem associated with the highest average data transfer rate.

18. (Original) The method Claim 10, wherein the modems are digital subscriber line (DSL) modems.

19. (Currently Amended) An apparatus for selecting a modem for service, comprising:

a monitoring module operable, for each of a plurality of modems, to determine a performance attribute that indicates operating performance of the modem based on a combination of at least two of multiple independent samples taken over a period of operation of the modem;

a memory operable to store a~~the~~ performance attribute for each modem~~a plurality of modems, wherein for each of the modems, the performance attribute indicates operating performance of the modem as determined based on multiple independent samples taken over a period of operation of the modem;~~ and

an allocation module coupled to the memory and operable to receive a modem request, to select a modem for service according to a performance attribute stored in the memory, and to communicate a modem identifier associated with the selected modem.

20. (Currently Amended) The apparatus of Claim 19, ~~further comprising a wherein the~~ monitoring module is further operable to monitor the selected modem's performance and to modify the performance attribute for the selected modem according to the modem's performance.

21. (Original) The apparatus of Claim 19, wherein:
the memory is further operable to store one or more user profiles; and
the allocation module is further operable to identify a user profile associated with the modem request and to select a modem for service according to the user profile.

22. (Original) The apparatus of Claim 21, wherein the allocation module is further operable to identify a subset of modems according to the user profile and to select a modem for service from the identified subset according to the modem's performance attribute.

23. (Original) The apparatus of Claim 21, wherein the allocation module is further operable to identify a criterion according to the user profile and to select a modem for service according to the criterion and the modem's performance attribute.

24. (Original) The apparatus of Claim 19, wherein the allocation module is further operable to remove a modem from service according to the modem's performance attribute.

25. (Original) The apparatus of Claim 19, wherein:
the performance attribute is a call success rate; and
the allocation module selects a modem for service by identifying an available modem associated with the highest call success rate.

26. (Original) The apparatus of Claim 19, wherein:
the performance attribute is an average data transfer rate; and
the allocation module selects a modem for service by identifying an available modem associated with the highest average data transfer rate.

27. (Original) The apparatus of Claim 19, wherein the modems are digital subscriber line (DSL) modems.

28. (Currently Amended) Modem selection software embodied in a computer-readable medium and operable to perform the following steps:

determining, for each of a plurality of modems, a performance attribute that indicates operating performance of the modem based on a combination of at least two of multiple independent samples taken over a period of operation of the modem;

~~storing a the performance attribute for each modem of a plurality of modems, wherein for each of the modems, the performance attribute indicates operating performance of the modem as determined based on multiple independent samples taken over a period of operation of the modem;~~

receiving a modem request;

selecting a modem for service according to the modem's performance attribute; and

coupling a remote modem and the selected modem.

29. (Original) The modem selection software of Claim 28, further operable to perform the following steps:

- monitoring the selected modem's performance; and
- modifying the performance attribute for the selected modem according to the modem's performance.

30. (Original) The modem selection software of Claim 28, further operable to perform the following steps:

- storing a plurality of user profiles;
- identifying a user profile associated with the modem request; and
- selecting a modem for service according to the modem's performance attribute and the user profile.

31. (Original) The modem selection software of Claim 30, further operable to perform the following steps:

- identifying a subset of modems associated with the user profile; and
- selecting a modem for service from the identified subset according to the modem's performance attribute.

32. (Original) The modem selection software of Claim 30, further operable to perform the following steps:

- identifying a criterion according to the user profile, the criterion related to the performance attributes of the modems; and
- selecting a modem for service according to the criterion and the modem's performance attribute.

33. (Original) The modem selection software of Claim 28, further operable to perform the step of removing a modem from service according to the modem's performance attribute.

34. (Original) The modem selection software of Claim 28, wherein:
the performance attribute is a call success rate; and
selecting a modem for service according to the modem's performance attribute
comprises identifying an available modem associated with the highest call success rate.

35. (Original) The modem selection software of Claim 28, wherein:
the performance attribute is an average data transfer rate; and
selecting a modem for service according to the modem's performance attribute
comprises identifying an available modem associated with the highest average data transfer
rate.

36. (Original) The modem selection software of Claim 28, wherein the modems
are digital subscriber line (DSL) modems.